Differentiation equations

KSU Economics "Exercises"

NOV 1, 2022

1. $\sqrt{1 - X^2}$

2. $(2 - X)^4$

3. $\frac{1}{2x+1}$

4. $e^{\frac{x}{5}}$

5. $y = \sqrt{x^2 - 3x + 18}$

6. $f(x, y) = x^4 + 3x^2y^4 - 45y + 90$

7. $(x^{\frac{1}{2}} + x^{-\frac{1}{2}})(\ 4x^4 - 3\sqrt{xy})$

8. $\ln(x^4 + 4)$

9. $y = \frac{x^2+\sqrt{x}-3}{x}$

10. $f(x) = \frac{\sqrt[4]{x}}{x^{-1}\ \sqrt{x^{-5}}}$

11. $z = 2x^2y^4 + 3\,x^4 + 5y - 7$

12. $f(x) = \frac{10x^2+3x^4+5}{x^2-5x}$